

**REMARKS/ARGUMENTS**

Reconsideration is requested. Claims 1-17, 19, 20, 23-26, 28-32, 34-44, 46 and 47 are pending. Responsive to the Office Action of September 27, 2007, the Examiner's comments and the cited art have been noted and studied. For reasons to be set forth in detail below, it is respectfully submitted that the present application is in condition for allowance, and such action is requested.

To expedite allowance, independent claim 1 has been amended to recite a preferred embodiment of the invention. In particular, claim 1 has been amended to recite that the analyte-permeable membrane "*completely encapsulates*" (emphasis added) the core and reference (support at, for example, page 23, lines 24-26; page 24, lines 16-18; and FIGs. 3 and 4 of the original disclosure). Dependent claims 4, 5 and 35 have been amended for clarity and conciseness.

Independent claim 44 has been amended to place it into a commonly used independent claim format and for proper antecedent basis.

It is respectfully submitted that the amendments above are supported by the specification, claims, abstract of the disclosure, and drawings as originally filed, and that no new matter has been added.

**Claim Rejections under §103**

The subject matter of claims 1-17, 19, 20, 23-26, 29, 34-44, 46 and 47 was rejected under 35 USC §103(a) as obvious over U.S. Patent No. 6,256,522 to Schulz (hereinafter "Schulz") in view of U.S. Patent No. 4,954,435 to Krauth (hereinafter "Krauth") and further in view of U.S. Patent No. 5,864,397 to Vo-Dinh (hereinafter "Vo-Dinh") in view of U.S. Patent No. 5,773,286 to Dionne et al. (hereinafter "Dionne").

Applicants' understanding of Schultz, Krauth, and Vo-Dinh has been elaborated upon in previous responses including, for example, those dated February 9, 2007 and June 27, 2006. The previously described deficiencies of these references are still applicable to the presently recited subject matter. For example, as noted in previous responses, none of Schultz, Krauth and Vo-Dinh, alone or in combination, teach a seamless device for detecting

an analyte and there is no incentive to combine these references since Schultz describes an implantable device and Vo-Dinh an externally placed device.

The Office Action asserts that Dionne cures the deficiencies of Schultz, Krauth and Vo-Dinh by describing a “sealed, implantable, encapsulated device” that includes “a polymer casting solution forming a semipermeable, porous membrane around the device” (see final paragraph of page 3 of the current Office Action). The Office Action goes on to assert that the membrane of Dionne must be seamless due to its method of manufacture.

In this regard, Applicants note that although Dionne describes a semipermeable membrane, the membrane is formed as a “tubular extrudate” (see col. 9, lines 24-25 of Dionne) and is also described as a “hollow fiber” that must be sealed at one end with glue (see col. 7, lines 58-59 of Dionne). Being tubular, the membrane described by Dionne is incapable of **completely** encapsulating other components and its use does not result in a seamless device. This interpretation of Dionne is supported by Dionne’s description of one end of a capsule being sealed and the other end including a port (see, for example, col. 8, lines 64-66 of Dionne) and FIGs. 1, 4, and 7 of Dionne, each of which show seams/joints between the membrane (element 15 in the FIGs.) and other elements of the device. Dionne, therefore, does not cure the deficiencies of Schultz, Krauth and V-Dinh summarized above in a manner which anticipates or makes obvious the subject matter of amended independent claims 1 and 44.

Amended independent claims 1 and 44 each recite an “analyte-permeable membrane that **completely** encapsulates” a core and a reference and that the claimed device is “seamless” (emphasis added). None of the cited references, alone or in combination, describe, teach or suggest the subject matter of amended claims 1 and 44. Moreover, the cited combination of references is unallowable since there is no reasonable incentive to combine Schulz and V0-Dinh. Applicants, therefore, respectfully submit that amended independent claims 1 and 44 are allowable.

Since claims 2-17, 19, 20, 23-26, 29, 34-43, 46 and 47 depend from and further limit their respective independent claim 1 or 44, they are allowable for at least the same reasons.

The subject matter of dependent claims 31 and 32 was rejected under 35 USC §103(a) as obvious over Schulz in view of Krauth and Vo-Dinh and in view of Dionne, as applied to

claim 1 above and further in view of "Direct Eye Visualization of Cy5 Fluorescence for Immunocytochemistry and In Situ Hybridization," 2000, *J. Hist Cytochem*, 48(3), 437-444, by Ferri et al. (hereinafter "Ferri").

Ferri was cited for teachings related to the use of cyanine dyes such as Cy5. Applicants respectfully submit that Ferri does not cure the deficiencies of Schulz, Krauth, Vo-Dinh and Dionne discussed above with respect to independent claim 1 and that, therefore dependent claims 31 and 32 are allowable for at least the same reasons as their parent claim.

The subject matter of dependent claim 28 was rejected under 35 USC §103(a) as obvious over Schulz in view of Krauth and Vo-Dinh and in view of Dionne, as applied to claim 1 above and further in view of U.S. Patent No. 6,274,323 to Bruchez et al. (hereinafter "Bruchez").

Bruchez was cited for teachings related to the use of semiconductor nanocrystals in a variety of assays. Applicants respectfully submit that Bruchez does not cure the deficiencies of Schulz, Krauth, Vo-Dinh and Dionne discussed above with respect to claim 1 and that, therefore dependent claim 28 is allowable for at least the same reasons as its parent claim.

### CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance and applicant earnestly solicits early examination on the merits and issuance of a Notice of Allowance. Should the Examiner believe that any additional information or amendment is necessary to place the application in condition for allowance, he is urged to contact the undersigned Attorney via telephone at 408-956-4790, or facsimile number 408-956-4404.

The Commissioner is hereby authorized to charge any required fees due in connection with this submission, including petition and extension of time fees, and to credit any overpayment to Deposit Account No. 10-0750 (Docket No. LFS5044USNP/MM) (Johnson & Johnson).

Respectfully submitted,

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